

24 A 704, 406, 64.

✓ A new preparation for crop diseases. G. Ibragimov.  
Sobremenn. Sel'sk. Khoz. Azerbaidzhan 1953, No. 3, 28;  
Referat. Zhur., Khim. 1953, No. 0295.—Dinitrothiocyanobenzene with and without Cu controlled bacteriose and sooty mild on small nuts in Azerbaidzhan. M. K.

IERAGIMOV, G. [R]

Dissertation: "Development of Methods for Eliminating the Sparseness of Cotton Fields in the Period after the Appearance of the Sprouts." Cand Agr Sci, Tashkent Agricultural Inst, 28 Jun 54. (Pravda Vostoka, Tbilisi, 8 Jun 54)

SO: SUM 318, 23 Dec 1954

IBRAGIMOV, G. R.  
USSR/Biology - Phytopathology

FD-1420

Card 1/1 : Pub. 73 - 9/11

Author : Ibragimov, G. R.

Title : ~~Cordiceps clavulata~~ parasitism in relation to Eulecanium corni (Bouche)

Periodical : Mikrobiologiya, 23, 6, 702-705, Nov-Dec 1954

Abstract : The cause of the massive destruction of Eulecanium corni [a scale insect of the genus Lecanium] in Azerbaydzhan during 1950 and 1951 was the parasitic fungus Cordiceps clavulata. Artificially cultured Cordiceps clavulata were used to spray infected hazel nut trees, thereby reducing Eulecanium corni infestation by 80 to 90 percent. Experiments showed that Cordiceps clavulata could be cultured easily in the laboratory, and would pass through both conidial and ascospore stages in culture media. The text is illustrated by a chart and four sketches. Five non-Soviet sources are cited.

Institution : Azerbaydzhan Plant Protection Station, Baku

Submitted : January 20, 1954

IBRAGIMOV, G.R.; AKHUNDOV, T.M.

Species of parasitic fungi of the genus *Culindosporium* Grev. in the  
Nukha-Zakataly region of Azerbaijan. *Izv. AN Azerb.SSR* no.4:63-80  
Ap'55. (MLRA 8:11)

(Nukha region--Fungi)

USSR / ~~APPROVED FOR RELEASE~~: Thursday, July 27, 2000

CIA-RDP86-00513R000 32(

Abs Jour : *Ref Zhur - Biol.*, No 6, March 1957, No 22991

Author : Ibragimov, G.R., Akhmedzade, Z.A.

Title : The Study of Diseases of Some Fruit Varieties in the Nukha-  
Zakhatal Zone of Azerbaidzhan.

Orig Pub : *Elmi eserler Azerb. universiteti, uch. zap. Azerb. un-ta*,  
1956, No 1, 81-87

Abstract : The result of a single study of the degree of fruit diseases  
is given for lower, middle and foothill ecologic zones in the  
Zakhatal rayon of Azerbaidzhan SSR. It is pointed out that in  
Azerbaidzhan SSR black canker are found not only in apple and  
pear trees, but also on apricot, maple, oak, rose, walnut and  
others.

IBRAGIMOV, G.R.; ISRAFILEKOV, L.A.; AKHMED-ZADE, Z.

Survey of some species of powdery mildew fungi of Azerbaijan. Uch.zap.  
AGU no.6:59-69 '56. (MLRA 10:5)  
(Azerbaijan--Mildew)

USSR/Plant Diseases. General Problems

O-1

Abs Jour : Raf Zhur - Biol., No 20, 1958, No 91925

Author : Ibragimov G.R.

Inst : Azerbaydzhani Univ.

Title : On the Problem of Variability in Fungi

Orig Pub : Azerb. Un-ta, 1956, No 10, 31-42

Abstract : The problems related to species and species evolution in pathogenic fungi are examined in the light of the example of the agents of anthracnose in plants of the genus Colletotrichum.

Card : 1/1

1

IBRAGIMOV, G. R. ISRAELIYEV, I. A. AKHONDZADE, S. A.  
APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00051832

Survey of some species of powdery mildew fungi occurring in Azerbaijan. Uch. zap. AGU no. 3:59-66 '57. (MIRA 11:1)  
(Azerbaijan--Mildew)

UL'YANISHCHEV, V.I.; IBRAGIMOV, G.R., red.; DOLGOV, V., red.izd-va

[Mycoflora of Azerbaijan] Mikoflora Azerbaidzhana. Baku,  
Izd-vo Akad.nauk Azerbaidzhanskoi SSR. Vol.2. [Rust fungi]  
Rashvachinnye griby. 1959. 442 p. (MIRA 13:4)  
(Azerbaijan--Rusts (Fungi))

UL'YANISHCHEV, V.I.; IBRAGIMOV, G.R., red.; VASIL'YEVSKIY, Ya., red.  
izd-va; AGAYEVA, Sh., tekhn. red.

[Fungi of Azerbaijan] Mikoflora Azerbaidzhana. Baku, Izd-vo  
Akad.nauk Azerbaidzhanskoi SSR. Vol.3. [Rust fungi] Rzhav-  
chinnye griby. Pt.1. 1960. 251p. (MIRA 14:5)  
(Azerbaijan--Rusts (Fungi))



IBRAGIMOV, G.R.

[Characteristics of the fungi Gloeosporium and Colletotrichum of  
the order Melanconiales] Kriticheskaya kharakteristika nekoto-  
rykh rodov meliankonievyykh gribov, Gloeosporium i Colletotrichum.  
Baku, 1954. 213 p. (MIRA 14:8)  
(Melanconiales)

USPENSKIY, F.M., kand.biolog.nauk; IBRAGIMOV, G.R.; PERESYPKIN, V.F., doktor biolog.nauk; MARKHASEVA, V.A., kand.sel'skokhoz.nauk

Responses to our articles. Zashch. rast. ot vred. i bol. 6 no.9:  
13-14 S '61. (MIRA 16:5)

1. Uzbekskiy institut zashchity rasteniy, g. Tashkent (for Uspenskiy).
  2. Direktor Azerbaydzhanskogo instituta zashchity rasteniy, g. Kirovabad (for Ibragimov).
  3. Ukrainskiy institut zashchity rasteniy, Kiyev (for Peresypkin, Markhaseva).
- (Plants, Protection of)

BREZHNEV, I.Ye.; IERAGIMOV, G.R.; POTLAYCHUK, V.I.; BREDIKHIN, A.M.,  
PEVZNER, V.I., tekhn. red.; TRUKHINA, O.N., tekhn. red.

[Guid to fungi occurring on the fruit and seeds of trees and  
shrubs]Opredelitel' gribov na plodakh i semenakh drevesnykh i  
kustarnikovykh porod. Moskva, Sel'khozizdat, 1962. 414 p.  
(MIRA 16:1)

(Woody plants—Diseases and pests)  
(Fungi, Phytopathogenic)

IBRAGIMOV, G.R.

In the Azerbaijan Institute of Plant Protection. Zashch. rast. ot  
vred. i bol. 8 no.8:9-12 Ag '63. (MIRA 16:10)

1. Direktor Azerbaydzhanskogo instituta zashchity rasteniy,  
Kirovabad.

IBRAGIMOV, G. T.

Cand Med Sci - (diss) "Conservative treatment of patients with chronic purulent epithempanitis." Moscow, 1961. 16 pp; (Second Moscow State Med Inst imeni N. I. Pirogov); 300 copies; price not given; (KL, 6-61 sup, 237)

IBRAGIMOV, G. T.

Conservative treatment of patients with chronic suppurative epitympanitis. Vest. otorin. no.3:26-32 '61. (MIRA 14:12)

1. Iz kafedry bolezney ukha, nosa i gorla (sav. - prof. I. I. Potapov)  
Tsentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

(TYMPANIC MEMBRANE--DISEASES)

IBRAGIMOV, I., kandidat tekhnicheskikh nauk.

Effect of running track arrangement on the length of locomotive  
stand time in hump yards having parallel placement of yards.

Trudy TASHIIT no.6:75-81 '56.

(MLRA 9:11)

(Railroads--Hump yards)

*Assistant to the Director of the Institute*

IBRAGIMOV, I. (g.TSelinograd); RABINOVICH, M. (p.TSelinograd)

Following the right course. Sov. profsoiuzy 17 no.20:9-10 0  
'61. (MIRA 14:9)  
(TSelinograd--Farm mechanization) (Stock and stockbreeding)



IBRAGIMOV, I.

Photographic observations of Encke-Bachlund's (19601) and Seki's (1961f)  
comets in Dushanbe. Astron. tsir. no. 231:5-6 N '62. (MIRA 16:4)

1. Institut astrofiziki AN Tadzhikskoy SSR.  
(Comets)

ACCESSION NR: AT4016602

S/2556/63/000/034/0042/0044

AUTHOR: Bakharev, A. M.; Ibragimov, I.; Shodiyev, U.

TITLE: The mass of meteor matter falling to earth in a year

SOURCE: Vsesoyuznoye astronomo-geodezicheskoye obshchestvo. Byulleten', no. 34, 1963, 42-44

TOPIC TAGS: astronomy, meteor, meteor matter, telescopic meteor, stratosphere, meteor matter sedimentation, telescope

ABSTRACT: A new study has been made of the mass of meteor matter annually entering the earth's atmosphere. Visual observations of meteors made over a period of twenty years at Dushanbe were analyzed. The seven instruments used in these observations are described and observational data tabulated separately for each. The U. Shodiyev formula  $\beta = \frac{5^m}{x}$  was used for determining the area of visibility of telescopic meteors from 7<sup>m</sup> to 13<sup>m</sup> for the various instruments. In this formula  $\beta$  is the apparent area of the field of view in square degrees in which telescopic meteors of a particular stellar magnitude were visible;  $x$  is instrument magnification;  $\bar{v}$  is mean duration of the flight of telescopic meteors;  $m$  is the apparent stellar magnitude of telescopic meteors. The known exponential law  $n'(m) = kn(m)$  was used, expressing change in the daily number of telescope meteors of different

Card 1/2

ACCESSION NR: AT4016602

brightness. In this formula  $k = \frac{s}{B}$ . The formula was used to determine the annual number of telescopic meteors for each instrument. Masses for each brightness group were computed from the number of meteors of each stellar magnitude. Total mass for all meteors from  $-10^m$  to  $+30^m$  was determined to be  $14 \cdot 10^3 - 51 \cdot 10^3$  tons annually. These data are close to former determinations, but considerably less than data from recent rocket investigations, but the authors fail to take into account that rocket data include micrometeorites, considerably smaller than telescopic meteors. Orig. art. has: 2 figures, 2 formulas and 2 tables.

ASSOCIATION: DUSHANBINSKOYE OTDELENIYE VAGO (Dushanbe Division VAGO)

SUBMITTED: 00May62

DATE ACQ: 24Feb64

ENCL: 00

SUB CODE: AS

NO REF SOV: 003

OTHER: 001

Card 2/2

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CIA-RDP86-00513R00051832

USSR/Plant Diseases. Diseases of Forest Species

Abs Jour : Ref Zhur Biol., No 1, 1959, 1974

Author : Ibragimov, I.A.

Inst : Bashkir Agricultural Institute

Title : Problem of Withering in Poplar Plantings in Bashkir ASSR

Orig Pub : Tr. Bashkirsk, s.-kh. in-ta, 1957, No 2, 265-278

Abstract : Withering of the poplar stands in Bashkir ASSR was noted in 1951-1952, during which period there was a gradual decrease (from 1940) in atmospheric precipitation. Analysis of the structure of 16 year-old plants of balsam poplars showed that trees of smaller diameter generally dried out in the crowded part of the tree stand, and the waste according to the number of trunks consisted of 37.3%; plants of Chinese poplars on segregated plots

Card 1/2

SADOVNIKOV, R.G.; IBRAGIMOV, I.A.; MAKHMUDOV, M.S.; ABLETOV, T.M.

Investigation of reinforced concrete loaded pontons for  
underwater pipelines. Stroi.truboprov. 10 no.10:6-8 0 '65.  
(MIRA 18:10)

1. Gipromorneft', Baku.

**"APPROVED FOR RELEASE: Thursday, July 27, 2000**

**CIA-RDP86-00513R00051832**

**APPROVED FOR RELEASE: Thursday, July 27, 2000**

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9.7

**APPROVED FOR RELEASE: Thursday, July 27, 2000**

**CIA-RDP86-00513R00051832(**

16(1),16(2)

AUTHORS: Ibragimov, I.A., and Chernin, K.Ye.

05798  
SOV/52-4-4-9/13

TITLE: On the Unimodality of Stable Laws

PERIODICAL: Teoriya veroyatnostey i yeye primeneniya, 1959,  
Vol 4, Nr 4, pp 453-456 (USSR)

ABSTRACT: The authors prove that all distribution functions of stable laws are unimodal. The result of Wintner [Ref 4] (symmetric stable laws are unimodal) and the representation of the characteristic function according to V.M. Zolotarev [Ref 2] are used. The authors mention the incorrect proof of the same theorem given by Lapin [Ref 1]. There are 8 references, 5 of which are Soviet, 1 French, and 2 American.

SUBMITTED: May 7, 1959

Card 1/1

16(1)

AUTHOR: Ibragimov, I.A.

SOV/20-125-4-5/74

TITLE: Some Limit Theorems for Stochastic Processes Stationary in the Strict Sense (Nekotoryye predel'nyye teoremy dlya statsionarnykh v uzkom smysle veroyatnostnykh protsessov)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 711-714 (USSR)

ABSTRACT: Let  $\{x_j\}$ ,  $-\infty < j < \infty$  be a process stationary in the strict sense with a discrete time assuming all integral values. Let  $\mathcal{M}_a^b$ ,  $-\infty \leq a < b-1 \leq \infty$  the  $\sigma$ -algebra of the events produced by the events  $\{(x_{i_1}, \dots, x_{i_r}) \in E\}$ ;  $a < i_1 < i_2 < \dots < i_r < b$ ,  $E$  -  $r$ -dimensional

Borel set. The author considers processes for which with the probability 1 it holds:

$$(1) \quad \sup_{B \in \mathcal{M}_{k+1}^1} |P\{B | \mathcal{M}_{-\infty}^1\} - P\{B\}| \leq \varphi(k) \downarrow 0$$

or

$$(2) \quad \sup_{A \in \mathcal{M}_{-\infty}^1} |P\{AB\} - P\{A\} \cdot P\{B\}| = \tilde{\varphi}(k) \downarrow 0$$

$$B \in \mathcal{M}_{k+1}^{\infty}$$

Card 1/3



Some Limit Theorems for Stochastic Processes  
Stationary in the Strict Sense

SOV/20-125-4-5/76

( (1)- regular and (2)- regular processes)

Theorem: Let  $\{x_j\}$  be a (2)-regular process. The sequence of distribution functions  $F_n(z) = P\{S_n < z\}$  may converge only with respect to stable laws. If the stable limit law for  $F_n(z)$  has the exponent  $\alpha$ , then  $B_n = n^{1/\alpha} \gamma(n)$ , where  $\gamma(n)$  is a function slowly variable in the sense of Karamata. The second theorem gives the necessary and sufficient conditions

that the distribution functions of the sums  $S_n = \frac{x_0 + \dots + x_{n-1}}{B_n}$ ,

$B_n$  - constants, converge to the normal distribution. The theorems 3 and 4 complete the theorem 2. Three further theorems on the limit behavior of the distribution functions of  $S_n$  are

Card 2/3

7  
Some Limit Theorems for Stochastic Processes  
Stationary in the Strict Sense

SOV/20-125-4-5/74

given. The results overlap with those of V.A.Volkonskiy and Yu.A.Rozanov (Moscow). The author mentions S.V.Nagayev and N.A.Sapogov.

There are 4 references, 2 of which are Soviet, 1 American, and 1 English.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova  
(Leningrad State University imeni A.A.Zhdanov)

PRESENTED: January 8, 1959, by A.N.Kolmogorov, Academician

SUBMITTED: January 2, 1959

Card 3/3

IBRAGIMOV, I. A., Cand Phys-Math Sci -- (diss) "Certain threshold theorems for probability processes stationary in a narrow sense," Moscow, 1960, 6 pp, 200 cop. (Moscow State U Im M. V. Lomonosov) (KL, 44-50, 128)



89498

S/043/60/000/001/004/014  
C 111/ C 333

/6.6/00

AUTHOR:

Ibragimov, I. A.

TITLE:

Asymptotic distribution of values of some sums

PERIODICAL:

Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 1, 1960, 55-69

TEXT: Let  $f(t) \in L_2(0, 1)$ ,  $f(t+1) = f(t)$ . For  $t \in A_{jk} =$

$[\frac{j-1}{2^k}, \frac{j}{2^k}]$  let  $[f]_k(t) = 2^k \int_{A_{jk}} f(t) dt$ ,  $j = 1, 2, \dots, 2^k$ .

Theorem 1,1: Let  $f(t) \in L_2(0, 1)$ ,  $f(t+1) = f(t)$ ,  $\int_0^1 f(t) dt = 0$ . If

$$\sum_{k=1}^{\infty} \|f - [f]_k\| < \infty \quad (1.1),$$

then

$$\|f\|^2 + 2 \sum_{k=1}^{\infty} \int_0^1 f(t)f(2^k t) dt = 6^{-2} < \infty, \quad (1.2)$$

Card 1/ 9

89498

S/043/60/000/001/004/014

Asymptotic distribution of values . . . C 111/ C 333

and if  $\sigma \neq 0$ , then

$$\text{mes } E_t \left\{ \frac{f(t) + \dots + f(2^{n-1}t)}{\sigma \sqrt{n}} < z \right\} \rightarrow \phi(z) \quad (1.3).$$

Let  $f(t)$  be complex-valued,  $f(t) = f_1(t) + i f_2(t)$ ,  $[f]_k = [f_1]_k + i [f_2]_k$ ,  $\|f\| = \left( \int_0^1 |f(t)|^2 dt \right)^{1/2}$ .

Theorem 2.1: Let  $f(t)$  be complex-valued,  $f(t) \in L_2$ ,  $f(t+1) = f(t)$ ,  $\int_0^1 f(t) dt = 0$ . If then  $\sum_{k=1}^{\infty} \|f - [f]_k\| < \infty$ , then for every measurable set  $A$  of the complex plane  $z = x + iy$  it holds:

Card 2/ 9

89498

Asymptotic distribution of values . . . S/043/60/000/001/004/014  
C 111/ C 333

$$\lim_{n \rightarrow \infty} \text{mes } E \left\{ \frac{f(t) + \dots + f(2^{n-1}t)}{\sqrt{n}} \in A \right\} =$$

$$= \frac{1}{2\pi\sigma_1\sigma_2(1-\rho^2)} \iint_A \exp\left\{-\frac{1}{1-\rho^2} \left(\frac{x^2}{\sigma_1^2} - \frac{2\rho xy}{\sigma_1\sigma_2} + \frac{y^2}{\sigma_2^2}\right)\right\} dx dy,$$

where

$$\sigma_i^2 = \|f_i\|^2 + \sum_{k=1}^{\infty} \int_0^1 f_i(t)f_i(2^k t)dt, \quad i = 1, 2, \quad (1.17)$$

$$\rho = \frac{1}{\sigma_1\sigma_2} \sum_{k=0}^{\infty} \int_0^1 (f_1(t)f_2(2^k t) + f_2(t)f_1(2^k t))dt \quad (1.18)$$

The proofs of the theorems are based on the following theorem, the  
Card 3/9

89498

S/043/60/000/001/004/014

Asymptotic distribution of values . . . C 111/ C 333

proof of which is not given:

Theorem 1: Let  $\{x_j\}$ ,  $0 \leq j < \infty$  be a random sequence which is stationary in the strict sense. Assume that a sequence  $\{f_k\}$ ,  $0 \leq k < \infty$ , stationary in the strict sense, is defined by

$$\begin{aligned} f_0 &= f(x_0, x_1, x_2, \dots), \\ f_1 &= f(x_1, x_2, x_3, \dots), \\ &\dots \dots \dots \\ f_k &= f(x_k, x_{k+1}, x_{k+2}, \dots), \end{aligned}$$

where  $f$  is the Baire function. Let the following conditions be satisfied: 1. For arbitrary natural numbers  $l$  and  $s$  and arbitrary Borel sets  $A$  and  $B$  from  $E_1$  and  $E_s$  respectively it holds

Card 4/9



89498

S/043/60/000/001/004/014

Asymptotic distribution of values . . . C 111/ C 333

$$|P\{[(x_0, \dots, x_{l-1}) \in A] \cap [(x_{k+l-1}, \dots, x_{k+l+s-2}) \in B]\} - \\ - P\{(x_0, \dots, x_{l-1}) \in A\} P\{(x_{k+l-1}, \dots, x_{k+l+s-2}) \in B\}| \leq \\ \leq \varphi(k) P\{(x_0, \dots, x_{l-1}) \in A\},$$

where  $\sum [\varphi(k)]^{1/2} < \infty$ .

$$2. E\{f_0^2\} < \infty, E\{f_0\} = 0. 3. \sum_{k=0}^{\infty} [E\{f_0 | E\{f_0 | x_0, \dots, x_k\} -$$

$- f_0 |^2\}]^{1/2} < \infty$ . Then

$$E\{f_0^2\} + 2 \sum_{k=1}^{\infty} E\{f_0 f_k\} = \sigma^2 < \infty,$$

and if  $\sigma \neq 0$ , then

Card 5/9

Asymptotic distribution of values . . . <sup>89498</sup> S/043/60/000/001/004/014  
C 111/ C 333

$$P \left\{ \frac{f_0 + \dots + f_{n-1}}{\sigma \sqrt{n}} < z \right\} \rightarrow \frac{1}{\sqrt{2\pi}} \int_{-\infty}^z e^{-\frac{u^2}{2}} du = \Phi(z) .$$

Let  $t = [a_1(t), a_2(t), \dots] .$  (2.1)

be the decomposition of  $t \in (0,1)$  into a continued fraction

$$t = \frac{1}{a_1(t) + \frac{1}{a_2(t) + \dots}} .$$

Let

$$Tt = t^1 = [a_2(t), a_3(t), \dots] . \quad (2.2)$$

Let  $\mu$  be the measure which is defined on the Lebesgue sets of the interval  $(0,1)$  by

$$\mu(A) = \frac{1}{\log 2} \int_A \frac{dt}{1+t} . \quad (2.3)$$

Card 6/9

89498

S/043/60/000/001/004/014

Asymptotic distribution of values . . . C 111/ C 333

Let  $A_{i_1 \dots i_k}^{1 \dots 1_k} = E_t \left\{ a_{1_1}(t) = i_1, \dots, a_{1_k}(t) = i_k \right\}, i_1, \dots, i_k =$

$= 1, 2, \dots$  and for  $t \in A_{i_1 \dots i_k}^{1 \dots 1_k}$  let

$$[f]_k(t) = \frac{1}{\mu_{A_{i_1 \dots i_k}^{1 \dots 1_k}}} \int_{A_{i_1 \dots i_k}^{1 \dots 1_k}} f(t) \mu(dt)$$

Let  $\|f\|_\mu = \left( \int_0^1 f^2(t) \mu(dt) \right)^{1/2}$

Theorem 1.2: Let

$f \in L_2(0,1)$  and  $\int_0^1 f(t) \mu(dt) = 0$ . If then

Card 7/9

89498

Asymptotic distribution of values . . . S/043/60/000/001/004/014  
C 111/ C 333

$$\sum_{k=1}^{\infty} \|f - [f]_k\|_{\mu} < \infty, \quad (2.4)$$

then

$$\|f\|_{\mu}^2 + 2 \sum_{k=0}^{\infty} \int_0^1 f(t)f(T^k t) dt = \sigma^2 < \infty,$$

and if  $\sigma \neq 0$ , then

$$\mu E_t \left\{ \frac{f(t) + \dots + f(T^{n-1} t)}{\sqrt{n}} < z \right\} \rightarrow \Phi(z).$$

The author mentions A. G. Postnikov, Professor, N. A. Sapagov, J. J. Pyatetskiy, A. Ya. Khinchin and Kuz'min.

Concerning the notations the author refers to J. L. Doob (Ref.1: Stochastic processes [Veroyatnostnyye protsessy] M., JL, 1956).

There are 10 Soviet-bloc and 5 non-Soviet-bloc references. The

Card 8/9

89498  
S/043/60/000/001/004/014  
Asymptotic distribution of values . . . C 111/ C 333

four references to English-language publications read as follows:  
M. Kac. On distribution of values of sums of the type

$\sum_{k=0}^{n-1} f(2^k t)$ . Ann. math., vol. 47, 33-49, 1946; M. Kac. Probability

methods in some problems of analysis and number theory. Bull. Amer.  
math. soc., vol. 55, No. 7, 1949; P. H. Diananda. Probability  
limit theorems with statistical applications. Proc. Cambr. phil.  
soc., 49, 39, 1953; C. Ryll-Nardzowski. On the ergodic theorems,  
II. Stud. math. XII, Fas. 1, 74-79, 1951

SUBMITTED: December 30, 1958

Card 9/9

*IBR 391m, I A.*

*2. 3. 4. I...*

One screen from the metric theory of continued fractions.

Vest. 191 13 no. 1:13-24 '61.

(1:14:2)

(Fractions, Continued)

IBRAGIMOV, I.A.

Spectral functions of certain classes of stationary Gaussian processes.  
Dokl.AN SSSR 137 no.5:1046-1048 Ap '61. (MIRA 14:4)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova. Predstav-  
leno akademikom A.N.Kolmogorovym.  
(Functional analysis)

IBRAGIMOV, I.A.

Evaluating the spectrum of a stationary Gaussian process. Dokl.  
AN SSSR 141 no.2:296-299 N '61. (MIRA 14:11)

1. Predstavleno akademikom A.N.Kolmogorovym.  
(Transformations (Mathematics))



IBRAGIMOV, I. A.

"On conditions for weak dependence for stationary Gaussian process"

report submitted at the Intl Conf of Mathematics, Stockholm, Sweden,  
15-22 Aug 62

IBRAGIMOV, I.A.

Some limit theorems for stationary processes. Teor. veroiat. i  
ee prin. 7 no.4:361-392 '62. (MIRA 15:11)  
(Limit theorems (Probability theory))

IBRAGIMOV, I.A., aspirant

Harmfulness of the mallow moth. Zashch. rast. ot vred. i bol.  
7 no.12:11 D '62. (MIRA 16:7)

1. Starshiy agronom po zashchite rasteniy kolkhosa imeni Mekhti  
Gusseyn Zade, Norashenskogo rayona Nakhichevanskoy ASSR, and  
Vsesoyuznyy institut zashchity rasteniy.

(Nakhichevan A.S.S.R.—Cotton—Diseases and pests)

(Nakhichevan A.S.S.R.—Moths)

IBRAGIMOV, I. A.

Stationary Gaussian sequences having the property of strong  
mixing. Dokl. AN SSSR 147 no.6:1282-1284 D '62.  
(MIRA 16:1)

1. Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova.  
Predstavleno akademikom V. I. Smirnovym.

(Sequences(Mathematics))

IBRAGIMOV, I.A. (Leningrad)

Central limit theorem for a class of dependent random variables.

Teor. veroiat. i ee prim:8 no.1:89-94 '63. (MIRA 16:3)

(Limit theorems (Probability theory))

IBRAGIMOV, I.A. (Leningrad)

Appraisal of the spectral function of a stationary Gaussian  
process. Teor. veroiat. i ee prim. 8 no.4:391-430 '63.  
(MIRA 17:1)

ACCESSION NR: AP4018861

8/0043/64/000/001/0042/0057

AUTHOR: Ibragimov, I. A. ; Tovstik, T. M.

TITLE: Evaluation of the spectral functions of one class of stationary random sequences

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 1, 1964, 42-57

TOPIC TAGS: random sequence, stationary random sequence, statistics, spectral analysis, spectral function, stochastic process

ABSTRACT: The paper considers the real, stationary, random sequence  $\{x_j\}$ :

$$x_j = \sum_{k=-\infty}^{\infty} a_k s_{j-k} \quad (1)$$

where the  $s_k$  are independent, equally distributed random variables with zero mean and finite variance. The correlation function of the sequence is denoted by  $R_m$ , the corresponding spectral function by  $F(\lambda)$  and the spectral density by  $f(\lambda)$ . The asymptotic behavior of the evaluation:

$$F_N(\lambda) = \frac{1}{2\pi N} \int_0^N \left| \sum_{j=1}^N x_j e^{-i\lambda j} \right|^2 d\lambda \quad (2)$$

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1/3 2

ACCESSION NR: AP4018861

is studied for an unknown spectral function  $F(\lambda)$ , constructed from a sample of size  $N$   $(x_1, \dots, x_N)$  taken from  $\{x_j\}$ . The measures  $P_N$  in  $C[0, \pi]$  are generated by the random process  $\xi_N(\lambda) = \sqrt{\pi} [F_N(\lambda) - F(\lambda)]$ . The main theorem states that as  $N \rightarrow \infty$  the sequence of measures  $P_N$  weakly converges to the measure  $P$  in  $C[0, \pi]$  generated by the zero-mean, gaussian, random process  $\xi(\lambda)$ , under certain assumptions concerning  $x_j$  and  $f(\lambda)$ . In particular:

$$\lim_{N \rightarrow \infty} P \left\{ \max_{0 \leq \lambda \leq \pi} \sqrt{N} |F_N(\lambda) - F(\lambda)| < \varepsilon \right\} = P \left\{ \max_{0 \leq \lambda \leq \pi} |\xi(\lambda)| < \varepsilon \right\}. \quad (3)$$

This theorem is a further extension of the results obtained earlier by U. Grenander and M. Rosenblatt (Ann. Math. Statistics, 24, 537-558, 1953) and by one of the present authors (Ibragimov). The rest of the paper is devoted to additional proofs of this theorem, the study of the correlation function and the asymptotic normality of the finite distributions of the process  $\xi_N(\lambda)$ , and an evaluation of the moments  $E|\xi_N(\lambda_2) - \xi_N(\lambda_1)|^2$ .  
Orig. art. has: numerous equations. ✓

Card

2/2



SUBMITTED: 27 Apr 64  
REF: 101

EXCL: OC  
REF: 101

SUB: CUBAN  
REF: 101

L 3214-66 EWT(d) IJP(c)

ACCESSION NR: AP5069211

S/0020/65/161/001/0033/0036

AUTHOR: Ibragimov, I. A.

TITLE: On the conditions for strong intermixing in stationary gaussian processes

SOURCE: AN SSSR. Doklady, v. 161, no. 1, 1965, 33-36

TOPIC TAGS: intermixing, gaussian process, spectral frequency, coefficient of mixing

ABSTRACT: This article treats the properties of the spectral frequency  $f(\lambda)$  of a stationary gaussian process  $x(t)$ , satisfying the condition for strong intermixing. The method adopted here involves study of the function  $\Gamma(z)$  which is analytical within the circle (upper half-plane) associated with  $f(\lambda)$ . Cases are considered for discrete time and continuous time. In the case of discrete time we consider processes  $x(t)$  with discrete time  $t = 0, \pm 1, \dots$ . Here, the coefficient of mixing is

$$\alpha(\tau) = \sup \left| \int_{-\pi}^{\pi} e^{i\tau\lambda} \varphi(\lambda) / (\lambda) d\lambda \right|, \quad \tau = 0, 1, \dots \quad (1)$$

Card 1/2

L 3214-66

ACCESSION NR: AP5009211

3

where sup is taken over all continuous functions  $\varphi(\lambda)$  which are extendable within the circle, for which  $\int |\varphi(\lambda)|/f(\lambda) d\lambda = 1$ . In the second case we consider processes with continuous time,  $-\infty < t < \infty$ . The coefficient of mixing is

$$\alpha(\tau) = \sup \left| \int_{-\infty}^{\infty} e^{i\tau\lambda} \varphi(\lambda) f(\lambda) d\lambda \right|, \quad \tau > 0, \quad (3)$$

where sup is taken over functions  $\varphi(\lambda)$  which are analytically extendable in the upper half-plane and which satisfy the condition

$$\int |\varphi(\lambda)|/f(\lambda) d\lambda = 1.$$

Theorems are developed for both cases.

Orig. art. has: 4 formulas.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University)

SUBMITTED: 010ct64

ENCL: 00

SUB CODE: MA

NR REF SOV: 004

OTHER: 002

OC  
Card 2/2

IBRAGIMOV, I.A.

Rate of convergence to normal distribution. Dokl. AN SSSR 161  
no.6:1267-1269 Ap '65. (MIRA 18:5)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.  
Submitted November 13, 1964.

IBRAGIMOV, I.A.

Complete regularity of multidimensional stationary processes with  
discrete time. Dokl. AN SSSR 162 no.5:983-985 Je '65. (MIRA 18:7)

1. Submitted December 22, 1964.

I 1057-66. EWT(d) IJP(c)

ACC NR: APS028168

SOURCE CODE: UR/0052/65/010/001/0095/0116

AUTHOR: Ibragimov, I. A.

ORG: none

TITLE: Spectrum of stationary Gaussian sequences which satisfy strong mixing condition. I. Necessary conditions

SOURCE: Teoriya veroyatnostey i yeye primeneniya, v. 10, no. 1, 1965, 95-116

TOPIC TAGS: sequence, random process, trigonometry, polynomial

Abstract: The following theorem is proved in this paper:

For a spectral density  $f(\lambda)$  to be the spectral density of a stationary Gaussian sequence  $\{x_n\}$  satisfying a strong mixing condition, it is

necessary that  $f(\lambda)$  be expressed as  $f(\lambda) = |P(\lambda)|^2 g(\lambda)$ , where

$P(\lambda)$  is a trigonometric polynomial and  $g(\lambda)$  is a function such that the

indefinite integral  $G(\lambda)$  of  $g(\lambda)$  satisfies the condition

$$\omega_0(\delta) = \sup_{\mu, x \in \mathbb{R}} \frac{|G(\mu+x) + G(\mu-x) - 2G(\mu)|}{G(\mu+x) - G(\mu-x)} \rightarrow 0 \text{ as } \delta \rightarrow 0.$$

Card 1/2

L 4057-66

ACC NR: AF502816<sup>B</sup>

Orig. art. has 77 formulas. [JPRS]

SUB CODE: MA / SUBM DATE: 26Jun64 / ORIG REF: 008 / OTH REF: 002

Card 2/2

L 3960-00 EMT(d)/T IJP(o)

ACC NR: AP5028169

SOURCE CODE: UR/0052/65/010/001/0133/0137

AUTHOR: Draginov, I. A. 44.55

ORG: none

TITLE: Class of evaluations of the spectral distribution function of a stationary sequence 16.44.55 15 B

SOURCE: Teoriya veroyatnostey i yeye primeneniya, v. 10, no. 1, 1965, 133-137

TOPIC TAGS: Gaussian distribution, class theory, sequence, distribution function, random process

Abstract: Let  $x_1, \dots, x_n$  be a sample drawn from a real, stationary Gaussian process  $\{x_n\}$ ,  $Ex_n = 0$ , with the spectral distribution function  $F(\lambda)$ ,  $F(\pi) = 1$ , which is unknown. Let  $\mathcal{F}$  denote the class of evaluations

$F_n^*(\lambda; x_1, \dots, x_n) = F_n^*(\lambda)$  of the spectral distribution function  $F(\lambda)$  with the following properties.

1.  $F_n^*(\lambda; x_1, \dots, x_n)$  are non-decreasing functions of  $\lambda$ ;

2.  $F_n^*(\pi; x_1, \dots, x_n) = x_1^2 + \dots + x_n^2$

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Card 1/2



L 3960-56

ACC NR: AP5028169

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It is proved that for small  $\varepsilon > 0$

$$\inf_{P \in \mathcal{B}} \sup P(L(P_N, P) > \varepsilon) > \tau > 0;$$

where  $L(F, G)$  denotes P. Levy's distance between two distribution functions  $F$  and  $G$ . Orig. art. has 3 formulas. JPRS

SUB CODE: MA / SUBM DATE: 15Oct64 / ORIG REF: 004 / OTH REF: 001

Card 2/2

SP

IBRAGIMOV, Il'dar Abdulovich; LINNIK, Yuriy Vladimirovich. Prinimal  
uchantiye PETROV, V.V.; DONCHENKO, V.V., red.

[Independent and stationarily connected variables] Nezavi-  
simye i statsionarno sviazannye velichiny. Moskva, Nauka,  
1965. 524 p. (MIRA 19:1)

L 20700-66 EWT(d)/T IJP(c)

ACC NR: AP6011992

SOURCE CODE: UR/0020/65/161/006/1257/1269

AUTHOR: Ibragimov, I. A.

ORG: Leningrad State Univ. im. A. A. Zhdanov (Leningradskiy gosudarstvennyy universitet)

TITLE: Rate of convergence to normal distribution <sup>16</sup>

SOURCE: AN SSSR. Doklady, v. 161, no. 6, 1965, 1267-1269

TOPIC TAGS: normal distribution, distribution function, characteristic function

ABSTRACT: The sequence  $\xi_1, \xi_2, \dots, \xi_n$  studied consists of identically distributed random variables with a common distribution function  $F(x)$  and characteristic function  $f(t)$ .  $F(x)$  is assumed to belong to the region of attraction of the normal law

$$\Phi(x) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^x e^{-t^2/2} dt.$$

In this case  $\xi_j$  have a finite initial moment and it is assumed that  $E\xi_j = 0$ .  $F_n(x)$  is the distribution function of

$$S_n = \frac{\xi_1 + \dots + \xi_n}{B_n} - A_n,$$

which is normed so that  $F_n(x) \rightarrow \Phi(x)$ . Necessary and sufficient conditions are given for the theorem

$$\sup_x |F_n(x) - \Phi(x)| = O(n^{-\delta}), \quad 0 < \delta \leq 1.$$

Card 1/2

L 20700-66 APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R000

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ACC NR: AP6011992

The Kramer condition is used to extend this theorem to the case  $\delta > 1$ . Necessary and sufficient conditions are given for

$$\sup_{-\infty < l < \infty} \left| \frac{\sqrt{n}}{h} P_n(l) - \varphi\left(\frac{lh}{\sqrt{n}}\right) \right| = O(n^{-\delta}),$$

and for  $\sup_{-\infty < x < \infty} |P_n(x) - \varphi(x)| = O(n^{-\delta}), \quad \delta > 0$ . The paper was presented by Academician Yu. V. Linnik, 13 November 1964. Orig. art. has: 3 formulas. [JFRS]

SUB CODE: 12 / SUBM DATE: 05Jun64 / ORIG REF: 001

Card 2/2

ACC NR: AP7004273

SOURCE CODE: UR/0052/66/011/004/0632/0655

AUTHOR: Ibragimov, I. A. (Leningrad)

ORG: none

TITLE: On the accuracy of approximating the distribution functions of sums of independent values by a normal distribution

SOURCE: Teoriya veroyatnostey i yeye primeneniya, v. 11, no. 4, 1966, 632-655

TOPIC TAGS: distribution function, probability, normal distribution, Gaussian distribution, approximation, periodic function, sequence

ABSTRACT: The sequence of independent identically distributed random values  $\xi_1, \xi_2, \dots, \xi_n, \dots$  with a common distribution function  $F(x)$  and characteristic function  $f(t)$  is examined in this article. When  $n \rightarrow \infty$ ,

$$P_n(x) = P\left\{\frac{\xi_1 + \dots + \xi_n}{B_n} - A_n < x\right\} \rightarrow \frac{1}{\sqrt{2\pi}} \int_{-\infty}^x e^{-u^2/2} du = \Phi(x). \quad (1)$$

The asymptotic behavior of the difference  $P_n(x) - \Phi(x)$  when  $n \rightarrow \infty$  is studied. The main theorems are as follows. In order that

$$\delta_n = \inf_{A_n, B_n} \delta_n(A_n, B_n) = O(n^{-1/2}) \quad (2)$$

Card 1/2

ACC NR: AP7004273

for any  $0 < \delta < 1$  when  $n \rightarrow \infty$ , it is necessary and sufficient that

$$\int_{-\infty}^{\infty} x^2 dF(x) < \infty, \quad (3)$$

$$\int_{|x|>s} x^2 dF(x) = O(s^{-\delta}), \quad s \rightarrow \infty.$$

In order that

$$\delta_n = O(n^{-\delta}), \quad (4)$$

it is necessary and sufficient that (3) and

$$\int_{-\infty}^{\infty} x^2 dF(x) = O(1), \quad s \rightarrow \infty. \quad (5)$$

Similar local theorems are also examined. Orig. art. has: 61 formulas.

SUB CODE: 12/ SUBM DATE: 06Nov65/ ORIG REF: 009/ OTH REF: 002

Card 2/2

IBRAGIMOV, I.A., kandidat tekhnicheskikh nauk; SPIRIN, A.A., dotsent,  
kandidat tekhnicheskikh nauk, redaktor; KADYRLI, A.M., tekhnicheskiiy redaktor

[Electronic control devices in the petroleum refining industry]  
Elektronnyye pribory kontrolya i regulirovaniya v neftepererabotke.  
Baku, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry.  
Azerbaidzhanskoe otd-nie, 1954. 102 p. [Microfilm] (MLRA 7:10)  
(Petroleum--Refining) (Electronic control)

BASHILOV, Vladimir Vasil'yevich; IBRAGIMOV, Ismail Ali ogly; ISMAYLOV,  
I.M., redaktor; AL'TMAN T.B., ~~tekhnicheskii redaktor~~

[Circular planimeters and their use in computing instrument  
record graphs in the petroleum industry] Krugovye planimetry i  
obrabotka imi diagramm priborov v neftianoi promyshlennosti. Baku,  
Azerbaidzhanskoe gos. izd-vo neftianoi i nauchno-tekhn. lit-ry.  
1955. 45 p. [Microfilm] (MLRA 9:7)  
(Planimeter)

IBRAGIMOV, I.A.

Controlling the temperature of the fractional distillation column of an atmospheric pressure installation [in Azerbaijani with summary in Russian]. Azerb.neft.khoz. 36 no.1:32-33 Ja '57.  
(Distillation, Fractional)



PHASE I BOOK EXPLOITATION

SOV/3903

Ibragimov, Ismail Ali, Docent, Candidate of Technical Sciences

Pribery avtomaticheskogo kontrolya i regulirovaniya khimicheskoy i neftepererabatyvayushchey promyshlennosti (Instruments for Automatic Control and Regulation in the Chemical and Petroleum Refining Industries) Baku, Azerneftneshr, 1959. 194 p. 2,000 copies printed.  
Ed.: A.I. Aleskerova; Ed. of Publishing House: A.S. Shteyngel'.

**PURPOSE:** This book is intended for engineers and technicians of the chemical and petroleum refining industries. It may also be useful to students of schools of higher education and tekhnikum.

**COVERAGE:** The methods and instruments for the automation of various production processes in the chemical and petroleum refining industries are reviewed. Different types of electronic potentiometers, electronic balanced bridges, and manometers are described. Equations used for determining the flow coefficient, dynamic and kinetic viscosity of the flow, diameters of tubes, and other parts of equipment are also presented along with descriptions and designs of different types of differential flow meters and automatic controllers. A number of automatic remote control systems used in the Soviet Union are also described. No personalities are mentioned. There are 83 references, all Soviet.

Card 1/8

14(5)

SOV/152-59-1-24/31

**AUTHORS:** Ibragimov, I. A., Farzane, N. G.

**TITLE:** Automatic Control and Regulation of the Plant for the Redistillation of a Wide Gasoline Fraction (Avtomaticheskii kontrol' i regulirovaniye ustanovki vtorichnoy peregonki shirokoy benzinovoy fraktsii)

**PERIODICAL:** Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1959, Nr 1, pp 97 - 103 (USSR)

**ABSTRACT:** Present schemes of automatic control and regulation of plants for the redistillation of a wide gasoline fraction are based on the use of tools and controllers, by which the individual parameters are measured and controlled. The attempt is made here to determine the interrelations of the parameters to be controlled with the establishment of schemes of a coupled control of the plant parameters. The parameters to be controlled are: 1) consumption of raw material entering the plant; 2) temperature of the column upper part; 3) level of the column lower part; 4) temperature of the column lower part; 5) temperature of the second raw material supply;

Card 1/2

Automatic Control and Regulation of the Plant for the  
Redistillation of a Wide Gasoline Fraction

SOV/152-59-1-24/31

6) vapor pressure at the condenser outlet; 7) temperature when the product is leaving the condenser; 8) water level in the water separator; 9) water level in the scrubber; 10) gasoline level in the water separator; 11) gasoline level in the scrubber. The parameters in 1), 3), 5), 6), 7), 8), and 9) are controlled individually and the automatic controllers and connecting appliances suggested for the control are shown in a table. For the control of the parameters in 2), 4), 10) and 11) methods are suggested which are more closely described here. The application of these methods permits the quality and the economy of the control to be improved. This is brought about by timely impulse supplies to the controller and by the diminution of the harmful influence caused by delays in measuring and controlling. There are 3 figures, 2 tables and 2 Soviet references.

ASSOCIATION:

Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova  
(Azerbaydzhan Industrial Institute imeni M. Azizbekov)

SUBMITTED:

December 7, 1958

Card 2/2

ALIYEV, G.Kh.; IBRAGIMOV, I.A.; MAKHMUDOV, Yu.A.; FARZANE, N.G.

Using electronic computers in complete automation of air and gas lift in petroleum production. Izv. vys. ucheb. zav.; neft' i gas 5 no.6:97-102 '62. (MIRA 16:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova i Vychislitel'nyy tsentr AN Azerbaydzhanskoy SSR.  
(Electronic computers) (Automation) (Oil wells--Gas lift)

IBRAGIMOV, I.A.; FARZANE, N.G.; MAKHMUDOV, Yu.A.; ALIYEV, G.Kh.

Method for centralized calculations of gas consumption using  
computer techniques. Izv. vys. ucheb. zav.; neft' i gaz 6  
no.4:87-92 '63. (MIRA 16:7)

(Electronic computers)  
(Automatic control)  
(Gas, Natural)

IBRAGIMOV, I.A.

Evident advantages. Zashch. rast. ot vred. 1 bol. 8 no.9:7-8  
S '63. (MIRA 16:10)

1. Zaveduyushchiy sel'skokhozyaystvennym otделom Nakhichevanskogo  
oblastnogo komiteta Kommunisticheskoy partii Azerbaydzhana.  
47

IBRAGIMOV, I.A.; NAGIYEV, Sh.A.

Determining the dynamic characteristics of the reactor-regenerative apparatus for thermal-contact pyrolysis. Izv. vys. ucheb. zav.; neft' i gaz 8 no.2:97-99 '65. (MIRA 18:3)

1. Azerbaidzhanskiy institut nefti i khimii im. M. Azizbekova.

IBRAGIMOV, I.A.; NAGIYEV, Sh.A.

Analyzing factors affecting pyrolysis in an "ethylene regime" and determining the parameters of automatic control. Izv. vyz. ucheb. zav.; nef't' i gas 8 no.3:97-99 '65. (MIRA 1

(MIRA 18:5)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

**RELEASE: Thursday, July 27, 2000**

~~CIA-RDP86-00513R000~~

320

SOURCE CODE: UR/0020/657

L 28912-66 EWT(d) IJP(c)  
ACC NR: AE6019168

ACC NRI  
AUTHOR: Ibraginov, I. A.

ORG: none

ACC NR: 148027  
AUTHOR: Ibragimov, I. A.  
ORG: none  
TITLE: Complete regularity of multidimensional stationary processes with discrete time  
16  
Doklady, v. 162, no. 5, 1965, 983-985  
on a

TITLE: Complete regularity of  
time  
SOURCE: AN SSSR. Doklady, v. 162, no. 5, 1965, 983-985  
mathematic analysis conditions that

SOURCE: AN SSSR. Doklady, 1961, No. 1, p. 100.

TOPIC TAGS: vector, mathematic analysis

Summary is a study of the conditions that must be imposed on a vector field in order to obtain a certain rate of diminution of the norm of the vector field. The author shows that if the vector field is sufficiently regular process is regular, then the norm of the vector field tends to zero for almost all  $t$  as  $t \rightarrow \infty$ .

SOURCE: AN SSSR. Doklady, v. 162, no. 1, 1968, pp. 1-3.

TOPIC TAGS: vector, mathematic analysis

ABSTRACT: This paper is a study of the conditions that must be imposed on a stationary process  $f(\lambda)$  in order to obtain a certain rate of diminution of the mixing coefficient. Since every completely regular process is regular, its stationary process  $f(\lambda)$  has a constant rank  $m \leq n$  for almost all  $\lambda$ . Also examined are processes of full rank  $m = n$ , as well as processes  $m < n$ . All proofs are based on the analytical

$$\alpha(\tau) = \alpha(\tau, t) = \sup_{\vec{\varphi}, \vec{\psi}} \left| \int_{-\pi}^{\pi} e^{i\lambda \tau} f(\lambda) \vec{\varphi}(\lambda), \vec{\psi}(\lambda) d\lambda \right|,$$

where, in general,  $(\alpha, \beta) = \sum A_{kj} \alpha_k \beta_j$ , and sup is taken over all

L 28912-66

ACC NR: AP6019168

vectors  $\vec{\varphi}(\lambda), \vec{\psi}(\lambda)$ , all coordinates  $\varphi_k, \psi_i$  of which are elements of the Hardy space  $H_1$ , and

$$\int_{-\pi}^{\pi} (f(\lambda) \vec{\varphi}(\lambda), \overline{\vec{\varphi}(\lambda)}) d\lambda = \int_{-\pi}^{\pi} (f(\lambda) \vec{\psi}(\lambda), \overline{\vec{\psi}(\lambda)}) d\lambda = 1.$$

This paper was presented by Academician Yu. V. Lennik on 22 December 1964. Orig. art. has: 4 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 11Dec64 / ORIG REF: 004 / OTH REF: 001

Catd 2/2 CC



IBRAGIMOV, I.A., inzh.; KULIYEV, G.R., inzh.

Repair of some sections of the KSV-37500-11 synchronous compensator. Elek. sta. 34 no.8:70-72 Ag '63. (MIRA 16:11)

IBRAGIMOV, I. E.

"Problems of the Application of Series Condensers for the Regulation of the Tension in Petroleum Producer Circuits." Acad Sci Azerbaijan SSR, Power Engineering Inst Ineni I. G. Yes'man, Baku, Press of the Acad Sci Azerbaijan SSR, 1952  
(Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

IBRAGIMOV, I.B.

~~Problem concerning the economical application of series condensers in~~  
lines feeding offshore petroleum enterprises. Energ.biol. no.6:15-22  
Je '54. (MLRA 7:6)

(Condensers (Electricity)) (Petroleum in submerged lands)

IBRAGIMOV, I. E.

AID P - 813

Subject : USSR/Electricity

Card 1/1 Pub. 28 - 5/7

Author : Ibragimov, I. E.

Title : ~~Experimental Study~~ of sub-harmonic oscillations at  
transformers connected through series capacitors (PK)

Periodical : Energ. byul., #9, 19-25, S 1954

Abstract : Subharmonic oscillations characterized by the appearance  
of non-sinusoidal currents of lower than the line frequency  
may occur when transformers are connected through a series  
of capacitors. The author studied these phenomena with  
the help of oscillograms and tried to determine the in-  
fluence of the reactive compensation, the circuit and  
transformer resistances, etc. 8 diagrams and 5 Russian  
references (1937-1953).

Institution : None

Submitted : No date

IBRAGIMOV, I.E., kandidat tekhnicheskikh nauk.

Device for indicating blown fuses. *Energetik* 5 no.1:29-30

Ja '57.

(MLBA 10:2)

(Electric fuses) (Electric instruments)

IBRAGIMOV, I.M.

Another recurrence to the economic aspect of using series capacitors.  
Energ.bul.no.8:1-4 Ag '56. (MLRA 10:2)  
(Condensers (Electricity))

IBRAGIMOV, I.B.

Problems of protecting series condensers used in local networks.  
Trudy NVIN AN Azerb. SSR 13:35-51 '56. (MLRA 10:4)  
(Condensers (Electricity)) (Electric networks)

IBRAGIMOV, I.E.

Selecting a damping resistor for preventing self-excitation of  
an asynchronous motor. Izv. AN Azerb. SSR. Ser. fiz.-mat. i tekhn.  
nauk no.5:151-159 '59. (MIRA 13:3)

(Electric resistors)

(Electric motor, Induction)



IBRAGIMOV, I.E.

Determination of the carrying capacity of 35 kv. and 110  
kv. lines equipped with series connected capacitors. Izv.  
AN Azerb. SSR. Ser. fiz.-mat. i tekhn. nauk no.6:129-143 '60.

(MIRA 14:8)

(Electric lines) (Electric capacitors)

IBRAGIMOV, I.M.; BABAYEV, M.A.; PETROSYAN, A.N.

Use of series condensers in 6 kv. electric networks petroleum plants.

Prom. energ. 15 no.9:26-31 8 '60.

(MIRA 13:10)

(Electric capacitors)

(Petroleum industry--Electric equipment)

IBRAGIMOV, I.E.; DZHUVARLY, Ch.M.; GUSEYNOV, F.G., red.; DOLGOV, V., red.  
izd-va; POGOSOV, V., tekhn. red.

[Problems concerning voltage regulation in electric networks] Vop-  
rosy regulirovaniia napriazheniia v elektricheskiikh setiakh. Baku,  
Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1961. 192 p.

(MIRA 14:7)

(Electric power distribution)

IBRAGIMOV, I.E.; MELIK-SHAKHNAZAROV, A.M.; SHAYN, I.L.; BEIKIN, I.G.

Electronic model of an automatic a.c. compensator in rectangular  
coordinates. Izv. AN Azerb.SSR.Ser.fiz.mat. i tekhn. nauk no.4:  
25-32 '61. (MIRA 14:12)

(Electronic apparatus and appliances--Models)  
(Measuring instruments)

IBRAGIMOV, I.E.; SAVIN, V.V.; NAGIYEVA, F.M.

Testing an automatic comparator on an electronic model. Izv. AN  
Azerb. SSR. Ser.fiz.-mat. i tekhnauk no.5:33-38 '61. (MIRA 15:2)  
(Electronic apparatus and appliances)

ABILOV, A.G.; IBRAGIMOV, I.E.; MARBIN, Z.S.

Registering of the frequency characteristics of an object  
and study of the optimum operation of an automatic control  
system of tube heating using a structural model. Trudy  
Vych. tsentra AN Azerb. AN Azerb. SSR 1:59-70 '62.

(MIRA 15:11)

(Petroleum refineries)

(Automatic control)

IBRAGIMOV, I.E.; KOPYSITSKIY, T.I.; KAPLAN, G.A.; MARBIN, Z.S.

Use of a mathematical model in determining the parameters of a circulation multiplicity regulator for a system of automatic control of catalytic cracking. Izv. AN Azerb. SSR. Ser. fiz.-mat. i tekhn. nauk no.6:101-112 '62. (MIRA 16:6)  
(Cracking process) (Automatic control) (Mathematical models)

ACCESSION NR: AP4018994

S/0146/64/007/001/0032/0038

AUTHOR: Ibragimov, I. E.; Aliyev, T. M.; Ter-Khachaturov, A. A.;  
Marbin, Z. S.

TITLE: Structural-simulator study of stability and transients in an automatic  
two-coordinate recorder

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 1, 1964, 32-38

TOPIC TAGS: recorder, two coordinate recorder, electronic simulator,  
recorder stability, recorder transients

ABSTRACT: An automatic high-speed two-coordinate recorder (see block  
diagram in Enclosure 1) consists of two autonomous identical measuring  
followers which operate on the self-compensation principle; the recorder permits  
the registration of input a-c and d-c voltage signals. The measurand is compen-  
sated by a voltage taken from a rheochord whose cursor is moved by a reversible

Card 1/32



ACCESSION NR: AP4018994

two-phase type RD-09 induction motor; the difference between the measurand and the rheochord voltage drives the motor. Two versions of the recorder were investigated on an MPT-9 electronic structural simulator: (a) with a speed-type feedback correction and (b) with a disturbance-type differentiating circuit. These results are reported: (1) The differential unit considerably improves the transient characteristics of the recorder; (2) The best values for several design coefficients have been determined (reported in the article); (3) With these optimum values, the overshoot was within 0-3.9% and the time for getting the output into the  $\pm 2\%$  stabilization range was under 0.15 or 0.20 sec. Orig. art. has: 4 figures, 18 formulas, and 4 tables.

ASSOCIATION: Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova  
(Azerbaidzhan Institute of Petroleum and Chemistry)

SUBMITTED: 12Feb63

DATE ACQ: 23Mar64

ENCL: 01

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/37

IBRAGIMOV, I.E.; ALIYEV, T.M.; TER-KHACHATUROV, A.A.; MARBIN, Z.S.

Using a structural model in investigating the stability and quality of the transient process in an automatic two-coordinate recorder. Izv. vys. ucheb. zav.; prib. 7 no.1:32-38 '64.

(MIRA 17:9)

1. Azerbaydzhanskiy institut nefti i khimii imeni M. Azizbekova. Rekomendovana kafedroy elektroizmereniy i vychislitel'nykh ustroystv.

GUSEYNOV, F.G.; IBRAGIMOV, I.E.

Use of a structure model in determining the dynamic parameters of the power systems of the Transcaucasian republics for equivalenting by the method of low vibrations. Izv. AN Azerb. SSR. Ser. fiz.-tekh. i mat. nauk no.5:33-41 '64.

(MIRA 18:4)

L 41020-66 EWT(d)/EWP(1) IJP(c)

ACC NR: AP6021365

SOURCE CODE: UR/0423/65/000/010/0013/0017

AUTHOR: Ibragimov, I. E.; Marbin, Z. S. 496

ORG: Institute of Cybernetics, AN Azerbaydzhan SSR (Institut kibernetiki AN Azerbaydz-hanskoy SSR)

TITLE: Some problems encountered in the investigation of the stability of dynamic systems using electronic structural models

SOURCE: Za tekhnicheskij progress, no. 10, 1965, 13-17

TOPIC TAGS: <sup>computer</sup> analog ~~system~~, <sup>programming</sup> dynamic ~~system~~, linear automatic control system, nonlinear automatic control system, control system stability

ABSTRACT: Three factors must be correlated during an investigation, by means of a structural model, of the stability of a dynamic system according to its mathematic description: the stabilities of the initial physical system, the solution to mathematical equations, and the machine solution. The present article is dedicated to an analysis of the interrelationship between the three aspects of the stability of an automatic control system (ACS). It is found that analytical methods of investigating the stability of high-order linear systems and those with variable coefficients require cumbersome calculations, whereas an investigation of the stability of nonlinear systems involves considerable difficulties. Structural models may help considerably in performing the analysis. An investigation of the stability of ACS with one nonlinear component according to the method of Gille-Wegvzyn is based on reducing a nonlinear system.

Card 1/2

UDC: 681.142.5:62--501.72.001.5

L 41020-66

ACC NR: AP6021365

to a variable-parameter linear system. An investigation of such a system on a model produces fast and high-quality results. Effective use of electronic structural models for the investigation of the stability of ACS is possible only by taking into consideration the analog system itself. The machine instability of an analog system does not always indicate the instability of the physical system. The absence of positive feedback in the analog system does not signify that the physical system is stable; the reverse is also true. Orig. art. has: 4 formulas and 3 figures.

SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 001

Card 2/2 hs

IBRAGIMOV, I.I.; MISKARLI, A.K.

New protective colloids for the stabilization of dispersed systems.  
Trudy Inst.khim. AN Azerb.SSR 18:79-83 '60. (MIRA 14:9)  
(Clay) (Surface active agents)

MISKARLI, A.K.; IBRAGIMOV, I.I.

Grape pomace alkali extract as a chemical reagent for processing clay  
suspensions. Azerb. neft. khoz. 39 no.3(405):17-19 Apr '60.  
(MIRA 14:9)

(Chemical tests and reagents)  
(Wine and wine making--By-products)  
(Oil well drilling fluids)

MISKARLI, A.K.; IBRAGIMOV, I.I.

Influence of certain factors on the colloidal and chemical  
properties of drilling mud systems stabilized by alkaline  
extracts squeezed out from grapes. Azerb.khim.zhur. no.5:  
77-83 '61. (MIRA 15:5)  
(Drilling fluids)



IBRAGIMOV, I.I.

Aggregative stability of disperse clay systems. Azerb. khim. zhur.  
no. 2:81-93 '62. (MIRA 16:3)  
(Clay) (Suspensions (Chemistry))

ACCESSION NR: AP4039226

S/0031/64/000/004/0083/0089

AUTHORS: Ibragimov, I. I.; Ustimenko, B. P.

TITLE: Experimental investigations of axisymmetric semi-infinite jet in wake flow

SOURCE: AN KazSSR. Vestnik, no. 4, 1964, 83-89

TOPIC TAGS: jet aerodynamics, pitot probe, concentric nozzle, wake flow, turbulent jet, friction coefficient, velocity profile, axisymmetric jet

ABSTRACT: An experimental investigation has been conducted on semi-infinite jet aerodynamics in the Thermophysics Laboratories at the Kazakh Scientific Research Institute of Power Engineering. The study involved the turbulent jet generated along cylindrical walls in wake flow. The experimental equipment consisted of two concentric nozzles with the jet issuing from a circular slit along cylindrical rods coaxial with the nozzle walls. Profile measurements were made using pitot probes. The results are represented graphically in terms of excess velocity,  $u - u_{\text{flow}}$ , profiles, both transverse and longitudinal in the jet for various parameters  $m = u_{\text{flow}}/u_{\text{jet}}$ . From two-dimensional hydrodynamic considerations an expression is derived for the turbulent friction coefficient in the semi-infinite jet for a

Card 1/2

ACCESSION NR: AP4039226

velocity profile given by  $u/u_m = 1.16 \frac{y}{\delta} e^{-1.4 \frac{y}{\delta}}$ , where  $\delta = \frac{y}{x^2}$ . The results show that increasing  $m$  has the effect of increasing the jet decay rate. Orig. art. has: 8 formulas and 4 figures.

ASSOCIATION: Laboratoriya teplofiziki Kazakhskogo nauchno - issledovatel'skogo instituta energetiki (Thermophysics Laboratory at the Kazakh Scientific Research Institute of Power Engineering)

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L 17679-65 EWT(1)/EMP(R)/EPR/FCS(K)/EWA(1) Pd-1/Ps-h AEDC(a) WZ

Card 1/3